11. (Amended) A telecommunications device according to claim 10, wherein said monitoring means monitors said network usage for levels of data traffic.

12. (Amended) A telecommunications device according to claim 10, wherein said monitoring means monitors said network usage for actual and requested quality of service (QoS) levels.

**REMARKS**

Upon entry of the instant Amendment, claims 1-13 are pending. Various claims have been amended in response to Objections or to overcome Section 112 rejections. Claim 8 has been amended to more particularly point out Applicants' invention. The Specification has been amended to correct reference numerals and typographical errors. No new matter has been added.

The Specification was objected to because of erroneous numerical references. The Specification has been amended in accordance with the suggestions in the Official Action to correct the numerical references. No new matter has been added.

The drawings were objected to because the reference numeral 516 in FIG. 5 was not mentioned in the Specification. The Specification has been amended to mention the reference numeral 516. No new matter has been added.

Claims 2-4, 6-7, 9-13 were objected to under 37 CFR 1.75 for various alleged informalities. In claim 3, a typographical error was identified, and it was suggested to write out "Quality of Service." Claim 3 has been amended to write out "quality of service." However, the typographical error "teleccmunications" allegedly in claim 3 does not appear to exist in Applicants' copy of the filed application which uses "telecommunications" properly spelled. In claims 11 and 12, "network usage" has been amended to "said network usage."

Other claims (all dependent claims) were objected to for use of the

indefinite article "A" in their preambles, rather than "The". Applicants respectfully submit that, since each claim is its own invention, the use of the indefinite article can be appropriate. As such, Applicants respectfully submit that this objection is obviated.

Claims 7-13 were rejected under 35 U.S.C. 112, para. 2, as being indefinite for failing to particularly point out and distinctly claim the subject mater which applicants regard as the invention. In particular, various antecedent basis problems were identified in claims 7 and 8. The claims have been amended to correct the antecedent basis problems. As such, the Examiner is respectfully requested to reconsider and withdraw the rejections.

Claims 8 and 9 were rejected under 35 U.S.C. §102(e) as being anticipated by Riddle, U.S. Patent No. 6,175,856 ("Riddle"). In order for there to be anticipation, each and every element of the claimed invention must be present in a single, prior reference. Applicants respectfully submit that the claimed invention is not taught, suggested, or implied by Riddle. As discussed in the Specification, one aspect of the present invention relates to a bandwidth adjustment server or bandwidth allocation server (BWAS) which monitors system bandwidth usage, sends requests to user terminals to identify their coding capabilities, and directs each of the user terminals to adjust their coding algorithms based on system bandwidth usage. If system bandwidth usage is high, the BWAS requires the user terminals to employ a less bandwidth-intense coding algorithm; similarly, when system bandwidth usage is low, the BWAS will allow the user terminals to employ higher bandwidth-use coding algorithms. Thus, in response to signals from the BWAS, the client terminals adjust their coding algorithms. Thus, claim 8 has been amended to recite, "means for changing a communication over said connection from said first coding algorithm to a second coding algorithm, said changing means responsive to one or more signals from a bandwidth allocation server that monitors network conditions."

In contrast, Riddle appears to merely provide a way for parties starting or joining a conference to negotiate codec choices. Riddle does not, however, appear to

have anything to do with a bandwidth allocation server responsible on a network-wide level for directing client terminals to re-negotiate codec choices, as generally recited in the claims at issue. Indeed, if anything, Riddle appears representative of a problem solved by the present invention, which prevents individual parties to particular conferences from hogging network bandwidth. As such, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims.

Claims 1-7 were rejected under 35 U.S.C. §103 as being unpatentable over Roy, U.S. Patent No, 6,081,513 ("Roy") in view of Riddle. Applicants respectfully submit that the claimed invention is not taught, suggested, or implied by Roy or Riddle, either singly or in combination. As noted above, one aspect of embodiments of the present invention relates to monitoring system usage and re-negotiating codecs responsive to signals from a network monitor. Thus, claim 1 recites "a bandwidth allocation server configured to cause a re-negotiation of which of said coding algorithms said one or more telephony devices communicates while said one or more telephony devices are communicating using a predetermined coding algorithm;" and claim 5 has been amended to recite "monitoring network usage at a bandwidth allocation server; and changing codec speed for one or more ongoing connections based on said monitoring network usage, responsive to signals from said bandwidth allocation server."

Riddle has been discussed above. Roy is relied on for allegedly teaching a bandwidth allocation server. Roy, however, provides a bridge resource manager (BRM) that is used to establish coding based on QoS considerations when a conference is begun. Roy, however, does not appear to provide a server that causes a change in codec speed or re-negotiating codecs once initial codec choices have been made. Indeed, Roy provides that if sufficient QoS levels are not available, "the bridge informs the calling and called locations that the conference call cannot be accepted." Col. 2, lines 38-40. That is, rather than teaching dynamically re-negotiating codecs, Roy teaches that, if particular codecs cannot be used, no conference can be undertaken at all. Thus, Applicants respectfully submit that Roy actually teaches away

from the present invention, which allows for a network monitor to cause individual client terminals to renegotiate codec speed based on network conditions. As such, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims.

Claims 10-13 have been rejected under 35 U.S.C. §103 as being unpatentable over Riddle in view of Roy. Riddle has been discussed above with reference to claim 8 and claim 9. Roy has been discussed above with reference to claim 1-7. For reasons similar to those discussed (i.e., the absence of a bandwidth allocation server the causes renegotiation of codecs), Applicants respectfully submit that these claims, too, are not taught, suggested, or implied by Roy or Riddle, either singly or in combination.

Claims 5, 7, 8, 10, and 11 have been provisionally rejected under the judicially created doctrine of obviousness type double patenting over claims 15 and 19 of co-pending Application No. 09/236,671. Applicants will consider filing a terminal disclaimer when allowable subject matter is indicated.

For all of the above reasons, Applicants respectfully submit that the application is in condition for allowance, which allowance is earnestly solicited.

Respectfully requested,

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**Marked Up Claims**

3. (Amended) A telecommunications system in accordance with claim 1, said bandwidth allocation server configured to initiate said re-negotiation if one or more existing connections have a quality of service (QoS) [QoS] level which may be altered.

5. (Amended) A method for operating a telecommunication system, comprising:

monitoring network usage at a bandwidth allocation server; and

changing codec speed for one or more ongoing connections based on said monitoring network usage, responsive to signals from said bandwidth allocation server.

7. (Amended) A method according to claim 5, including determining whether data traffic on [said] a monitored network has exceeded a predetermined threshold.

8. (Amended) A telecommunications device, comprising:

means for establishing a connection with another telecommunications device using a first coding algorithm; and

means for changing [said] a communication over said connection from said first coding algorithm to a second coding algorithm, said changing means responsive to one or more signals from a bandwidth allocation server that monitors network conditions.

11. (Amended) A telecommunications device according to claim 10, wherein said monitoring means monitors said network usage for levels of data traffic.

12. (Amended) A telecommunications device according to claim 10, wherein said monitoring means monitors said network usage for actual and requested quality of service (QoS) levels.

**Marked Up Specification**

Paragraph starting at line 24 of page 3:

--FIG. 1 is a diagram illustrating a telecommunications system 100 according to an embodiment of the present invention. In particular, the telecommunications system 100 includes a local area network (LAN) or packet network 101. Coupled to the LAN 101 may be a variety of H.323 terminals 102A, 102B, a multi-point control unit (MCU) 104, an H.323 gateway 106, an H.323 gatekeeper 108, a LAN server 112 and a plurality of other devices such as personal computers (not shown). The H.323 terminals 102A, 102B are in compliance with the H.323 standard. Thus, the H.323 terminals 102A, 102B support H.245 for negotiation of channel usage, Q.931 for call signaling and call setup, registration admission status (RAS), and RTP/RTCP for sequencing audio and video packets. The H.323 terminals 102A, 102B may further implement audio and video codecs, T.120 data conferencing protocols and MCU capabilities. Further details concerning the Recommendation H.323 may be obtained from the International Telecommunications Union (ITU); the Recommendation is hereby incorporated by reference in its entirety as if fully set forth herein. In addition, the gatekeeper 108 has coupled thereto a bandwidth allocation server (BWAS) 109 according to a specific embodiment of the invention. As will be discussed in greater detail below, the BWAS 109 monitors system bandwidth usage and directs each H.323 terminal to adopt a particular codec or coding algorithm according to bandwidth availability. It is noted that in other specific embodiments the BWAS functionality may also be incorporated into the gatekeeper [109] 108, placed on any terminal or server, or embodied as a separate unit separately coupled to the network 101, as long as the BWAS can communicate with the endpoints. Thus, the figures are merely exemplary. --

Paragraph starting at line 27 of page 4:

--The network terminal 10 is coupled to a video input/output (I/O) interface 28, an

audio I/O interface 12, a user application interface 19, and a system control user interface (SCUI) 20. Network terminal 10 also includes an H.225 layer 24, a video coder/decoder (codec) 15, an audio codec 14, H.245 protocol functionality 18, Q.931 protocol functionality 16, and RAS protocol functionality [32] 17. --

Paragraph starting at line 33 of page 4:

--As seen in FIG. 2, the video I/O interface 28 which may be part of the standard H.323 device connects to the video codec [22] 15 such as an H.261 codec for encoding and decoding video signals. Coupled between video I/O interface 28 and H.225 layer 24, video codec [22] 15 translates encoded video signals to H.225 protocol signals. Although the H.261 codec can be the video codec used for an H.323 terminal, other video codecs, such as H.263 codecs and others, may also be used for encoding and decoding video. The H.245 protocol is used to exchange terminal capability information such as the video coding algorithm. Generally, the called terminal specifies its capabilities to the calling terminal.--

Paragraph starting at line 24 of page 5:

--The control layer 11 interfaced with SCUI 20 provides signaling and flow control for proper operation of the H.323 terminal. In particular, all non-audio and non-video control signaling is handled via SCUI 20. Coupled to SCUI 20 in the control layer 11 are H.245 layer 18, Q.931 layer 16 and RAS layer 17, which couple to H.225 layer 24. Thus, SCUI 20 interfaces to the H.245 standard which is the media control protocol that allows capability exchange, channel negotiation, switching of media modes and other miscellaneous commands and indications for multimedia communications. SCUI 20 also interfaces to the Q.931 protocol which defines the setup, teardown, and control of H.323 communication sessions. SCUI 20 further interfaces to the Registration, Admission, Status (RAS) protocol that defines how H.323 entities can access H.323 gatekeepers to perform among other things address translation, thereby allowing H.323

endpoints to locate other H.323 endpoints via an H.323 gatekeeper. The H.225 standard layer 24, which is derived from the Q.931 standard, is the protocol for establishing connection between two or more H.323 terminals and also formats the transmitted video, audio, data and control streams into messages for output to the network interface 13 (e.g., transport over IP network 101). The H.225 layer 24 also retrieves the received video, audio, data and control streams from messages that have been input from network interface [50] 13.--

Paragraph starting at line 27 of page 11:

--Once the H.323 terminals have re-set their default choices for coding algorithms, the bandwidth monitor 306 continues to monitor bandwidth usage, in a step 512. The bandwidth monitor 306 provides a signal indicative of bandwidth usage to the processor 302. The processor 302, in turn, accesses the memory 308 for the threshold value Y. The processor then performs a compare operation, comparing the threshold value Y with the bandwidth signal received from the bandwidth monitor 306, in a step 514. If the bandwidth usage level is above or equal to Y, then the system continues to monitor usage (return to step 512). If, however, bandwidth usage levels drop below the threshold value Y, then the processor 302 issues a command onto the network allowing the H.323 terminals to re-adjust their coding algorithm hierarchies at step 516. Again, this may take the form of an RAS message or H.245 signaling, with the re-adjustment being either stepping up to the next fastest coding algorithm or alternatively stepping up directly to a selected algorithm, e.g., the fastest coding algorithm. Each H.323 terminal's coding resource unit 111 then adjusts accordingly the coding hierarchy so that the higher-speed, more bandwidth-intense coding algorithms are allowed to be employed.--

Paragraph starting at line 30 of page 13:

--Returning to FIG. 7, in a step 704, the BWAS 109 and, particularly, the

bandwidth monitor [308] 306 monitors the condition of the network and, particularly, bandwidth usage. If the criteria for re-negotiation of codecs are not met, as determined in a step 706, then the process returns to step 704, i.e., monitoring continues. However, if one or more of the criteria are met, then in a step 708, the BWAS 109 sends one or more control signals to the endpoints directing them to renegotiate their codecs. As discussed above, this may be a command to negotiate lower speed codecs or higher speed codecs. In a step 710, the endpoints renegotiate their codecs, using standard H.323 signaling. The previous codecs are then dropped, in a step 712. The system then cycles back to step 704, i.e., network monitoring, after an optional configurable delay (step 714) to prevent the possibility of the same connection from being repeatedly downgraded.--